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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,535	03/10/2004	Ronald L. Gordon	FIS920040008	2534

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EXAMINER

MOHAMEDULLA, SALEHA R

ART UNIT PAPER NUMBER

1756

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/708,535	<b>Applicant(s)</b> GORDON ET AL.	
	<b>Examiner</b> Saleha R. Mohamedulla	<b>Art Unit</b> 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>31004; 4504</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Claims 1-19 are pending.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-19 rejected under 35 U.S.C. 102(b) as being anticipated by US# 5,958,635 to Reich et al.

Reich teaches proximity effect correction. Lithographic Proximity Correction (LPC) shapes are added (503) to a layer of a layout database file (501). Geometric criteria such as feature width are then used to filter the added LPC shapes (502). The LPC shapes are then modified (505) by determining which LPC shapes are within a predetermined distance from a shape in a layer of the second data base (504). The database file, including the modified LPC shapes, is then used to manufacture a set of lithographic masks (506). The lithographic masks are then used to pattern a set of wafers in the manufacture of integrated circuits (507) (Abstract). Figure 10 shows a flowchart for the method. A table of rules is applied, problems are identified and corrected (col. 2, line 60 - col. 4, line 45 and col. 5, lines 5-15).

3. Claims 1-19 rejected under 35 U.S.C. 102(b) as being anticipated by US# 6,303,253 to Lu.

Lu teaches an optical proximity effect correction method. A structure and method for performing optical proximity correction in photolithographic masks includes defining a hierarchy of inner bands adjacent and inside edges and ends of a mask structure within the photolithographic mask, defining a hierarchy of outer bands adjacent and outside edges and ends of said mask structure changing a transparency of part of the inner and outer bands for the mask structure to correct for optical proximity errors using predefined transparency changes, determining whether the predefined transparency changes affect the outer band of the mask structure or outer bands of other mask structures on the photolithographic mask, and altering the predefined transparency changes to prevent the predefined transparency changes from affecting the outer band and the outer bands. Domain-balancing method and algorithm are used to decide the position, shape, and size of serifs and holes in the predefined transparency changes (Abstract). Therefore, Lu teaches applying rules, identifying and correcting problems. Lu also teaches some of the rules. The predefined transparency changes can include forming a square hole within the mask structure at interior right angles or forming a square serif external to the mask structure at exterior right angles. A serif has the same transparency as the mask structure. A hole has an opposite transparency as the mask structure. The altering can include changing a transparency of part of the mask structure and regions adjacent the mask edge to form a negative complementary image along each edge of the structure. The altering may also identify quadrants around corners of the mask structure and change a transparency of the quadrants to form mirror images between diagonal quadrants. The altering can include adding a series of hole regions internal to the mask structure and parallel to

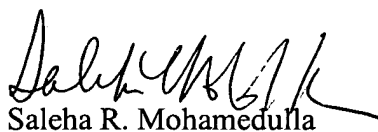
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an edge of the mask structure. The series of hole regions can decrease in size depending upon a positional distance from a corner of the mask structure (col. 1, lines 50-70).

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Saleha Mohamedulla whose telephone number is (571) 272-1387. The Examiner can normally be reached Monday-Friday, from 8:00 AM to 4:30 PM. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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February 19, 2005